REMARKS

Claims 1-23 are pending in the case. The Office Action rejected each of claims 1-23 as followed:

- claims 1-6, 8-11, 15-18, and 22-23 as anticipated under 35 U.S.C. § 102(a) by Yan Yan & R. James Brown, "Suppression of Water-Column Multiples by Combining Components of OBS Surveys", 13 CREWES Research Report 321 (2001) ("Yan (2001)");
- claims 1-6, 8, 10-11, 15-18, and 22-23 as anticipated under 35 U.S.C. § 102(b) by Yan Yan & R. James Brown, "Suppression of Multiples by Wavefield Separation Techniques", 12 CREWES Research Report 1 (2000) ("Yan (2000)");
- claim 7 as obvious under 35 U.S.C. § 103 (a) over Yan (2001);
- claims 12-14 and 19 as obvious under 35 U.S.C. § 103 (a) over Yan (2001) or Yan (2000) in combination with U.S. Letters Patent 6,314,371 ("Monk"); and
- claims 20-21 as obvious under 35 U.S.C. § 103 (a) over Yan (2001) or Yan (2000) in combination with U.S. Letters Patent 5,696,734 ("Corrigan").

Applicant still traverses each of the rejections.

I. STATUS OF REFERENCES AS PRIOR ART

The Office implicitly admits that Monk is not prior art under 35 U.S.C. §102, but maintains that it is still nevertheless prior art under 35 U.S.C. §103. As a preliminary matter, in the absence of an admission, a reference must be prior art under some provision of 35 U.S.C. §102 to be prior art under 35 U.S.C. §103. *See Riverwood Int'l Corp. v. R. A. Jones & Co.*, 66 U.S.P.Q.2d (BNA) 1331, 1337 (Fed. Cir. 2003); *In re Fout*, 213 U.S.P.Q. (BNA) 532, 535 (C.C.P.A. 1982). Office policy reflects this statement of the law. *See* M.P.E.P. §2141.01. Applicants note that the Office has not yet identified any provision of 35 U.S.C. §102 or admission by Applicant under which Monk qualifies as prior art for purposes of 35 U.S.C. §103. As Applicant previously noted, Monk is only citable under the legal fiction employed by the Office that it *prima facie* evidences activities by others prior to Applicants' invention on the assumption that Applicant's filing date is the date of invention. Accordingly, Applicants retain the right to swear behind it.

With respect to Yan (2001), Applicants' still do not concede that it is prior art. The Office now alleges that Yan (2001)[1] is prior art under 35 U.S.C. §102 (a), apparently as "known by others", prior to Applicants' invention. However, the Office's assertion relies on the legal fiction that it *prima facie* evidences activities by others prior to Applicants' invention on the assumption that Applicant's filing date is the date of invention. Accordingly, Applicants retain the right to swear behind it as Applicants have not conceded its status as prior art.

II. YAN (2001)[2] FAILS TO TEACH ALL THE LIMITATIONS OF THE INDEPENDENT CLAIMS

Applicants maintain Yan (2001) fails to teach all the limitations of the claims. The Office finds Applicants' arguments "unpersuasive", stating:

> Yan discloses processing the data to obtain the down-going components of the received wavefield parameters (even though these may be later attenuated). Yan further discloses that the direct arrival is part of the downgoing wavefield, and show this in Fig. 23. Therefore, the Yan 2001 reference meets the broad limitation of using the downgoing component of the parameter to identify the direct arrival.

(Detailed Action, p. 4) The third sentence is a *non-sequitur*, one of the classic errors in logic, relative to the first two sentences. In particular, in the third sentence, the Office has assumed "using the downgoing component of the parameter to identify the direct arrival" from the two factual predicates when it does not logically follow. That is, disclosing the two factual predicates does not lead to the asserted conclusion without an unsupported assumption.

Nowhere does Yan (2001) detect direct arrival from a down-going component of the wavefield. As previously pointed out, Yan (2001) teaches that the direct arrival comprises a portion of the down-going wavefield as is shown in Figure 23. From this fact, and from the teaching that up- and down-going wavefields, the Office extrapolates that Yan (2001) teaches "using the downgoing component of the parameter to identify the direct arrival". But, if separating the up- and down-going wavefields yields all the down-going components shown in

[1] Applicants' representative does not have copies of the correspondence referred to by the Office nor do their records show ever receiving such. The references are not available at all from the Office's website.

[2] Applicants acknowledge the confusion between Yan (2000) and Yan (2001) in the previous response and noted in the Office Action, and apologize for any inconvenience it caused.

Figure 23, why would one need to then redundantly detect the direct arrival from a downgoing component? They would not, as it would already have been determined.

Yan (2001) therefore does not teach all the limitations of the claims. Accordingly, Yan (2001) does not anticipate any claim under 35 U.S.C. § 102. M.P.E.P. § 2131; *In re Bond*, 15 U.S.P.Q.2d (BNA) 1566, 1567 (Fed. Cir. 1990). Furthermore, each of the obviousness rejections predicated on Yan (2001) rely on Yan (2001) to teach all the limitation of the independent claims. Yan (2001) also therefore does not render obvious any claim, whether alone or in combination. M.P.E.P. § 706.02(j); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

III. YAN (2000) FAILS TO TEACH ALL THE LIMITATIONS OF THE INDEPENDENT CLAIMS

The Office alleges that Yan (2000) teaches "using the downgoing component of the parameter to identify the direct arrival". To the extent that the Office is correct, it cites a section of the report that is clearly referencing a visual inspection of a graphical representation in Figure 23. Applicants note that the present invention is indisputably a computer-implemented method, and Applicants have amended claims to clarify and emphasize this fact. (The amendments put the claims in better condition for allowance or appeal, and Applicants therefore request that they be entered pursuant to 37 C.F.R. §1.116.) Thus, Yan (2000) does not teach the implementation of direct arrival by a computer-implemented as is claimed by Applicants.

Yan (2000) therefore does not teach all the limitations of the claims. Accordingly, Yan (2000) does not anticipate any claim under 35 U.S.C. § 102. M.P.E.P. § 2131; *In re Bond*, 15 U.S.P.Q.2d (BNA) 1566, 1567 (Fed. Cir. 1990). Furthermore, each of the obviousness rejections predicated on Yan (2000) rely on Yan (2000) to teach all the limitation of the independent claims. Yan (2000) also therefore does not render obvious any claim, whether alone or in combination. M.P.E.P. § 706.02(j); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

IV. CONCLUDING REMARKS

Applicants therefore respectfully submit that the claims are in condition for allowance, and requests that they are allowed to issue. The Examiner is invited to contact the undersigned attorney at (713) 934-4053 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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